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(54) Title: LIQUID CRYSTAL MATERIALS

(57) Abstract: A blue phase liquid crystalline material comprising a mixture comprising at least one bimesogenic compound and at least one chiral compound, wherein the material is capable of stable existence in the blue phase over a temperature range of at least 5°C. A process for the preparation of the above blue phase liquid crystalline material, an optical device comprising it, a process of mirrorless lasing and a slotted monolithic optical waveguide using it are also disclosed.

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